

# LNG: Not So “Natural” Gas In Tacoma

**August 2014:** Port of Tacoma approved a property lease.  
**November 2015:** City of Tacoma issued FEIS.  
**December 2015:** The Puyallup Tribe filed a lawsuit.  
**Early 2019:** PSE’s expected completion/production date



## What is the Tacoma LNG project?

**Tenant:** Puget Sound Energy (PSE), a PRIVATE investment arm of Australia’s Macquarie Group  
**Proposal:** A \$275 million LNG facility at the Port of Tacoma (Alexander Ave E).  
**Facility:** The 18-story LNG facility will produce, store and distribute natural gas.  
**LNG production projection:** 87 million gallons per year with 24/7 operation  
**Infrastructure needed:** Five miles of new pipeline through the City of Fife and unincorporated Pierce County  
**PSE’s job projections:** 250 temporary construction jobs and 18 permanent jobs.  
**Natural gas source:** Apparently fracked gas from Canada or the Rocky Mountains.<sup>3</sup>

*“The Project would be one of the nation’s first marine vessel bunkering facilities, with on-site LNG liquefaction and storage (bunkering) at the Port of Tacoma.”<sup>4</sup>*

## What is Natural Gas/Liquefied Natural Gas?

Natural gas is a fossil fuel predominantly composed of methane. It is found deep underground in rock formations.<sup>1</sup> Liquefied natural gas (LNG) is natural gas that has been converted to liquid by cooling it to -260 degrees F. This is advantageous because LNG then takes up 1/600th the volume of natural gas making it easier to store and transport.<sup>2</sup>

## Why does PSE want this?

According to the FEIS (Final Environmental Impact Statement):

- To fuel ships that run on natural gas (for two Tote ships that will make a weekly round trip from Tacoma to Alaska);
- To sell LNG to “other industry merchants” (it is unclear what this means exactly); and
- To operate as a peak shaving facility.

Peak-shaving facilities allow gas companies to purchase LNG when demand and prices are lower and store it for sale when demand is high. Customers are still charged the same high “peak” price, thus providing high profits to the gas company.<sup>10</sup> Peak-shaving plants are typically small plants that do not operate continuously throughout the year.<sup>5</sup>

## What does PSE have to hide?

Although PSE has said LNG is safe, when a citizen filed a public information request that would reveal the safety risks, PSE filed an injunction to prevent public disclosure.<sup>9</sup>

## What are the risks?

**Potential breaches** at an LNG facility could result in significant destruction of property, bodily harm and loss of life.

**Natural gas is combustible.** LNG is not explosive in its liquid form. However, if it’s spilled it can evaporate, forming a vapor cloud, which can ignite and burn.<sup>6</sup>

**Accidents** and/or malfeasance in operating could have catastrophic effects. This poses an obvious danger to people who live in close proximity (i.e. neighborhoods located near the Port) as well as the ICE detention center.

For example: On March 31, 2014, an explosion at the Williams Northwest Pipeline LNG peak shaving facility occurred in Plymouth, WA, injuring 5 workers and causing the evacuation of 400 people. An investigation named the leading cause of the explosion as inadequate procedures that allowed oxygen to remain in the system. The combined oxygen and gas ignited, causing the failure and explosion during the startup process.<sup>7</sup>

**Terrorism.** LNG facilities have been identified as ideal targets for terrorism. On May 15, 2016, ISIS claimed responsibility for an attack on a natural gas plant in Iraq, killing 10 and injuring dozens more.<sup>8</sup>

[www.redlinetacoma.org](http://www.redlinetacoma.org)

### References

<sup>1</sup>[https://en.wikipedia.org/wiki/Natural\\_gas](https://en.wikipedia.org/wiki/Natural_gas)  
<sup>2</sup>[https://en.wikipedia.org/wiki/Liquefied\\_natural\\_gas](https://en.wikipedia.org/wiki/Liquefied_natural_gas)  
<sup>3</sup>[www.tacomacleanlng.com](http://www.tacomacleanlng.com)

<sup>4</sup>[https://www.cityoftacoma.org/government/city\\_departments/planning\\_and\\_development\\_services/planning\\_services/pse\\_proposed\\_tideflats\\_lng\\_facility](https://www.cityoftacoma.org/government/city_departments/planning_and_development_services/planning_services/pse_proposed_tideflats_lng_facility)

<sup>5</sup><http://www.sightline.org/2016/01/13/tacoma-steering-into-uncertain-waters/>

<sup>6</sup>[http://www.exponent.com/LNG\\_spill\\_out\\_dispersion/](http://www.exponent.com/LNG_spill_out_dispersion/)

<sup>7</sup>[http://www.phmsa.dot.gov/pv\\_obj\\_cache/pv\\_obj\\_id\\_98982CCB658FA8ABD35E75131426D883FEA14800/filename/FIR\\_and\\_APPENDICES\\_PHMSA\\_WUTC\\_Williams\\_Plymouth\\_2016\\_04\\_28\\_REDACTED.pdf](http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_98982CCB658FA8ABD35E75131426D883FEA14800/filename/FIR_and_APPENDICES_PHMSA_WUTC_Williams_Plymouth_2016_04_28_REDACTED.pdf)

<sup>8</sup><http://www.cnn.com/2016/05/15/middleeast/iraq-violence-isis/index.html>

<sup>9</sup><http://www.thenewstribune.com/news/local/article77560112.html>

<sup>10</sup><http://www.naturalgaswatch.org/?p=3194>

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RedLine Tacoma is a grassroots movement of concerned community members from all walks of life. We are neighbors volunteering our time and energy to stop the selling off of our precious resources and to end further degradation of our fragile Pacific Northwest environment. RedLine Tacoma is building and mobilizing our community. We aim to alert, educate, inform and advocate.

**RedLineTacoma**



# fracking

## What is fracking?

Hydraulic fracturing (fracking) is an extraction method used to obtain gas and oil from the earth's shale rock. This industrial process creates a well, drills down either vertically or horizontally into deep rock formations and injects a high-pressure mixture of water, sand and chemicals. This creates fissures in the rock that releases fossil fuels (natural gas).

## What chemicals are used?

Most companies don't want to share their proprietary blends of fracking chemicals but it's well known that hundreds of toxic cocktails are used including but not limited to lead, uranium, mercury, radium, methanol and formaldehyde.<sup>3</sup>

## What are the environmental, safety and health hazards?

The process contaminates drinking water, triggers earthquakes, generates air pollution and contributes to climate change through greenhouse gas emissions.<sup>1</sup>

## Why is fracking dangerous?

There is always the possibility of leaks, spills and explosions when fracking. But just as importantly, fracking damages the land and pollutes water and air. This is demonstrated by faucets in Pennsylvania and rivers in Australia catching fire and earthquakes in Oklahoma, so here's what you need to know:

**Land:** Research shows fracking causes earth tremors. Fracking can induce earthquakes through the injection of fluid into deep rock formations near fault lines and through the disposal of fracking wastewater via underground injection. "A handful of oil and gas waste disposal wells with names like 'Deep Throat' and 'Flower Power' have been linked by seismologists to an increasingly strong earthquake swarm around Oklahoma City."<sup>4</sup> Steps are being taken in several states, namely Oklahoma and Texas, to restrict fracking wells in earthquake-prone areas.

**Water:** Each fracking well uses an inordinate amount of water (millions of gallons). This in and of itself is a huge cost to the environment. The fracking process also produces an abundance of wastewater. The majority of the fracking cocktail (water, chemicals and sand) used to blast the rock remains underground. It grows increasingly toxic and can contaminate aquifers when well casings age and/or fail. Also, a percentage of the fracking cocktail returns to the surface.<sup>8</sup>

**Air:** Pollution is of course caused by known sources like diesel generators, truck traffic and gas venting/flaring but fracking wells also leak air pollutants. In fact, "Oil and gas operations in the Barnett Shale area of Texas produced more smog during the summer of 2009 than all the motor vehicles in the Dallas-Fort Worth area. Rural Sublette County in Wyoming, the scene of 27,000 gas wells, has recorded higher levels of ozone than Houston and Los Angeles."<sup>5</sup>

**Climate:** Natural gas is deceptively touted as a clean alternative to coal. But when comparing coal and natural gas, greenhouse gas emissions are practically the same. Methane is the primary component of natural gas. "Because here's the unhappy fact about methane: Though it produces only half as much carbon as coal when you burn it, if you don't—if it escapes into the air before it can be captured in a pipeline, or anywhere else along its route to a power plant or your stove—then it traps heat in the atmosphere much more efficiently than CO<sub>2</sub>."<sup>6</sup>

## Is natural gas a good transition or bridge fuel?

The simple fact is, if we focus on natural gas, we become dependent on it and thus continue our reliance on fossil fuels. This distracts the market from moving to sustainable, cleaner energy sources. We cannot transition from one fossil fuel to another and expect to see significant benefits. It's time to move the conversation beyond natural gas to renewable energy. The continued use of fossil fuels accelerates global warming. Natural gas is a false solution!

<sup>1</sup>[www.greenpeace.org/usa/global-warming/issues/fracking](http://www.greenpeace.org/usa/global-warming/issues/fracking)

<sup>2</sup>[https://en.wikipedia.org/wiki/Natural\\_gas](https://en.wikipedia.org/wiki/Natural_gas)

<sup>3</sup>[www.dangersoffracking.com](http://www.dangersoffracking.com)

<sup>4</sup>[http://www.eenews.net/special\\_reports/deep\\_underground/stories/1060002402](http://www.eenews.net/special_reports/deep_underground/stories/1060002402)

<sup>5</sup><http://content.sierraclub.org/naturalgas/why-move-beyond-natural-gas>

<sup>6</sup><http://www.thenation.com/article/global-warming-terrifying-new-chemistry>

<sup>7</sup><http://content.sierraclub.org/naturalgas/why-move-beyond-natural-gas>

<sup>8</sup><http://content.sierraclub.org/naturalgas/why-move-beyond-natural-gas>